



72-2 APR 24 2002

PATENT 1153
830002-2003.1
MSK877
09/872,832

TECH CENTER 1600/2900

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Sadelain et al
U.S. Serial No.: 09/872,832
Filing Date : 06/01/01
For : Artificial Antigen Presenting Cells And Methods Of Use Thereof
Examiner : To be Assigned

RECEIVED
DEC 28 2001
TECH CENTER 1600/2900

745 Fifth Avenue, New York, NY 10151

Mailing Label Number: EL 742694537 US
Date of Deposit: October 25, 2001

Express Mail

I certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" Service under 37 CFR 1.10 on the date indicated above and is addressed to the Assistant Commissioner of Patents and Trademarks, Washington, DC 20231

Charles T. Sadelain
(Typed or printed name of person mailing paper or fee)
Charles T. Sadelain
(Signature of person mailing paper or fee)

COPY OF PAPERS
ORIGINALLY FILED

TRANSMITTAL

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Enclosed are:

- 1) Return-receipt postcard;
- 2) Information Disclosure Statement;
- 3) Completed Form PTO-1449; and
- 4) Copies of the cited documents.

Respectfully submitted,
FROMMER LAWRENCE & HAUG LLP
Attorneys for Applicant

Susan K. Lehnhardt
Susan K. Lehnhardt
Reg. No. 33,943
(212) 588-0800



COPY OF PAPERS
ORIGINALLY FILED

APR 24 2002

TECH CENTER 1600/2900

PATENT
511169-2007
MSK877
09/590,247

#61
alice
5/30/02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Sadelain et al
U.S. Serial No.: 09/872,832
Filing Date : 06/01/01
For : Artificial Antigen Presenting Cells And Methods Of Use Thereof
Examiner : To be Assigned

RECEIVED
DEC 28 2001
TECH CENTER 1600/2900

745 Fifth Avenue, New York, NY 10151

Mailing Label Number: EL 742694537 US

Express Mail

Date of Deposit: October 25, 2001

I certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" Service under 37 CFR 1.10 on the date indicated above and is addressed to the Assistant Commissioner of Patents and Trademarks, Washington, DC 20231

Charles J. Sadelain
(Typed or printed name of person mailing paper or fee)

Charles J. Sadelain
(Signature of person mailing paper or fee)

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

The Examiner's attention is respectfully directed to the accompanying documents listed in the accompanying Form PTO-1449. The Examiner is respectfully requested to consider, and make of record, these documents. This Information Disclosure Statement is not a representation that any of the cited documents are considered pertinent, or that any of the cited documents are indeed prior art.

PATENT
511169-2007
MSK877
09/590,247

This Information Disclosure Statement is being filed before the first Office Action; no fee is believed. Please charge any fee required, or credit any overpayment therein, to Deposit Account No. 50-0320.

Respectfully submitted,
FROMMER LAWRENCE & HAUG LLP
Attorneys for Applicants

By: Susan K. Lehnhardt
Susan K. Lehnhardt
Reg. No. 33,943



COPY OF PAPERS
ORIGINALLY FILED

RECEIVED
DEC 28 2001
TECH CENTER 1600/2900

830002-2003.1
MSK877
09/872,832
Sheet 1 of 4

APR 24 2002

TECH CENTER 1600/2900

Based on Form PTO-1449		ATTY. DOCKET NO.: 830002-2003.1		SERIAL NO.: 09/872,832			
LIST OF REFERENCES CITED BY APPLICANT		APPLICANT: Sadelain et al					
		FILING DATE: June 1, 01		GROUP ART UNIT 1653			
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						

FOREIGN PATENT DOCUMENTS								
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATIO N	
							YES	NO
	AG	WO 96/27392	09/12/96	WIPO				
	AH	WO 93/07286	04/15/93	WIPO				
	AI							
	AJ							

EXAMINER	DATE CONSIDERED
* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	



COPY OF PAPERS
ORIGINALLY FILED

RECEIVED

DEC 28 2001

TECH CENTER 1600/2900

830002-2003.1
MSK877
09/872,832
Sheet 2 of 4

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AK	Banchereau et al. (1998) "Dendritic cells and the control of immunity" Nature 392:245-252
AL	Bednarek et al. (1991) "The minimum peptide epitope from the influenza virus matrix protein" J. Immunol. 147:4047-4053
AM	Bhardwaj et al. (1994) "Influenza virus-infected dendritic cells stimulate strong proliferative and cytolytic responses from human CD8+ T cells" J. Clin. Invest. 94:797-807
AN	Brenner et al. (1998) "Gene and cell transfer for specific immunotherapy" Vox Sang. 74 (Suppl. 2):87-90
AO	Bryant et al. (1992) "Calculation of lytic units for the expression of cell-mediated cytotoxicity" J. Immunol. Met. 146:91-103
AQ	Chen et al. (1996) "Serological analysis of Melan-A(MART-1), a melanocyte-specific protein homogeneously expressed in human melanomas" Proc. Natl. Acad. Sci. USA 93:5915-5919
AR	Davis et al. (1993) "Topology and affinity of T-cell receptor mediated recognition of peptide-MHC complexes" Curr. Opin. Immunol. 5:45-49
AS	Deeths et al (1999) "ICAM-1 and B7-1 provide similar but distinct costimulation for CD8+ T cells, while CD4+ T cells are poorly costimulated by ICAM-1" Eur. J. Immunol. 29:45-53
AT	Dustin et al. (1999) "Costimulation: building an immunological synapse" Science 283:649-650
AU	Gallardo et al. (1997) "The internal ribosomal entry site of the encephalomyocarditis virus enables reliable coexpression of two transgenes in human primary T lymphocytes" Gene Ther. 4:1115-1119
AV	Gong et al. (1999) "Cancer patient T cells genetically targeted to prostate-specific membrane antigen specifically lyse prostate cancer cells and release cytokines in response to prostate-specific membrane antigen" Neoplasia 1:123-127
AW	Kawakami et al. (1994) "Identification of the immunodominant peptides of the MART-1 human melanoma antigen recognized by the majority of HLA-A2-restricted tumor infiltrating lymphocytes" J. Exp. Med. 180:347-352
AX	Kawakami et al. (1997) "Immunobiology of human melanoma antigens MART-1 and gp100 and their use for immuno-gene therapy" Int. Rev. Immunol. 14:173-192

EXAMINER

DATE CONSIDERED

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

APR 24 2002



COPY OF PAPERS
ORIGINALLY FILED

RECEIVED

DEC 28 2001

TECH CENTER 1600/2900

830002-2003.1

MSK877

09/872,832

Sheet 3 of 4

APR 24 2002

AY	Le Douarin et al. (1973) "Origin and renewal of lymphocytes in avian embryo thymuses studied in interspecific combinations" Nature New Biol. 246:25-27
AZ	Lehner et al. (1996) "Processing and delivery of peptides presented by MHC class I molecules" Curr. Opin. Immunol. 8:59-67
BA	Levine et al. (1997) "Effects of CD28 costimulation on long-term proliferation of CD4+ T cells in the absence of exogenous feeder cells" J. Immunol. 159:5921-5930
BB	Mellman et al. (1998) "Antigen processing for amateurs and professionals" Trends Cell Biol. 8:231-237
BC	Morrison et al. (1992) "Identification of the nonamer peptide from influenza A matrix protein and the role of pockets of HLA-A2 in its recognition by cytotoxic T lymphocytes" Eur. J. Immunol. 22:903-907
BD	O'Reilly et al. (1998) "Adoptive immunotherapy for Epstein-Barr virus-associated lymphoproliferative disorders complicating marrow allografts" Springer Semin. Immunopathol. 20:455-491
BE	Ory et al. (1996) "A stable human-derived packaging cell line for production of high titer retrovirus/vesicular stomatitis virus G pseudotypes" Proc. Natl. Acad. Sci. USA 93:11400-11406
BF	Parkhurst et al. (1996) "Improved induction of melanoma-reactive CTL with peptides from the melanoma antigen gp100 modified at HLA-A*0201-binding residues" J. Immunol. 157:2539-2548
BG	Parra et al. (1997) "The role of B7-1 and LFA-3 in costimulation of CD8+ T cells" J. Immunol. 158:637-642
BH	Riddell et al. (1995) "Principles for adoptive T cell therapy of human viral diseases" Annu. Rev. Immunol. 13:545-586
BI	Riviere and Sadelain In, Gene therapy protocols (ed. Robbins) pp. 59-78 (Humana Press, Totowa, NJ, 1997 "Methods for the construction of retroviral vectors and the generation of high titre producers"
BJ	Riviere et al. (1995) "Effects of retroviral vector design on expression of human adenosine deaminase in murine bone marrow transplant recipients engrafted with genetically modified cells" Proc. Natl. Acad. Sci. USA 92:6733-6737

EXAMINER

DATE CONSIDERED

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



COPY OF PAPERS
ORIGINALLY FILED

RECEIVED

DEC 28 2001

830002-2003.1
MSK877
09/872,832
Sheet 4 of 4

TECH CENTER 1600/2900

TECH CENTER 1600/2900

APR 24 2002

BK	Reddini et al. (1996) "Binding and presentation of peptides derived from melanoma antigens MART-1 and Glycoprotein-100 by HLA-A2 subtypes" J. Immunol. 156:3882-3891
BL	Rooney et al. (1998) "EBV specific CTL: A Model For Immune Therapy" Vox Sang. 74 (Suppl. 2): 497-498
BM	Rosenberg (1991) "Immunotherapy and gene therapy of cancer" Cancer Res. 51:5074s-5079s
BO	Schultze et al. (1997) "CD40-activated human B cells: an alternative source of highly efficient antigen presenting cells to generate autologous antigen-specific T cells for adoptive immunotherapy" J. Clin. Invest. 100:2757-2765
BQ	Shaw et al. (1997) "Making the T cell receptor go the distance: a topological view of T cell activation" Immunity 6:361-369
BR	Spagnoli et al. (1995) "Peptide-specific CTL in tumor-infiltrating lymphocytes from metastatic melanomas expressing <i>MART-1/Melan-A</i> , <i>gp100</i> and <i>Tyrosinase</i> genes: a study in an unselected group of HLA-A2.1-positive patients" Int. J. Cancer 64:309-315
BS	Sprent et al. (1997) "Constructing artificial antigen-presenting cells from <i>Drosophila</i> cells" Adv. Exp. Me Biol. 417:249-254
BT	Sprent (1995) "Professionals and amateurs" Curr. Biol. 5:1095-1097
BU	Timmerman et al. (1999) "Dendritic cell vaccines for cancer immunotherapy" Annu. Rev. Med. 50:507-529
BV	Watts et al. (1999) "T cell co-stimulatory molecules other than CD28" Curr. Opin. Immunol. 11:286-293
BW	Young et al. (1990) "Dendritic cells stimulate primary human cytolytic lymphocyte responses in the absence of CD4+ helper T cells" J. Exp. Med. 171:1315-1332
BX	

EXAMINER	DATE CONSIDERED
* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	



POST OFFICE TO ADDRESSEE



EL 742694537 US

ORIGIN (POSTAL USE ONLY)

PO ZIP Code

Date In

Mo.

Day

Year

Time In

Weight

No Delivery

Weekend

Holiday

FROM: (PLEASE PRINT)

PHONE

SKL/474
FROMMER LAWRENCE & HAUG LLP
745 5TH AVE FL 10
NEW YORK

NY 10151-1000

830002-2003-1

PRESS HARD.

You are making 3 copies.

FOR PICKUP OR TRACKING CALL 1-800-222-1811

www.usps.com



DELIVERY (POSTAL USE ONLY)

Delivery Attempt

Mo.

Day

Delivery Attempt

Mo.

Day

Delivery Date

Mo.

Day

Time

AM

PM

NO DELIVERY

Weekend

Holiday

Customer Signature

Federal Agency Acct. No. or

Postal Service Acct. No.

TO: (PLEASE PRINT)

PHONE

Assistant Commissioner Patent

Washington D.C. (2023)

RECEIVED
FEB 28 2007
TECH CENTER 1600/2900

1031/

EL 742694537 US mailed 07 2003

Serial No. 09 872,832 File No. 830002-2003-1 By SKL/474
Title In the Matter of the Application of Artificial Antigen Presenting Cells
The following due in the U.S. Patent Office, was received in the Patent Office of USPTO
☐ Affidavit ☐ Declaration ☐ Express Mail Mailing Certificate (separate sheet)
☐ Amendment ☐ Check No. for \$
☐ Preliminary Amendment ☐ Deposit Account Order Form
☐ Amendment After Final Rejection ☐ Drawing Sheet(s)
☐ Request for Extension of Time ☒ Information Disclosure Statement
☐ Provisional Patent Application ☒ PTO Form 1449
☐ Application for Patent, including ☐ Issue Fee Transmittal
Pages Specification Claims ☐ Brief ☐ Letter
☐ Declaration ☐ Oath ☐ Power ☐ Application for TM Registration
☐ Request for Filing Continuation or Divisional ☐ Including Specimens
Application sheets, in duplicate ☐ Status Request ☐ Notice of Appeal
☐ File Wrapper Continuation Patent Application ☐ Petition ☐ Response
sheets, in duplicate ☐ Priority Document
☐ PCT Request sheets, including ☐ Small Entity Declaration
☐ Transmittal Letter to the US/RO ☒ Rehearsal (in)

COPY OF PAPERS
ORIGINALLY FILED